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PROVIDING MORALE, WELFARE, AND RECREATION
FUNDS AS INCENTIVES TO SAVE – ENDING THE
END OF YEAR SPENDING FRENZY

by

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A Research Report Submitted to the Faculty

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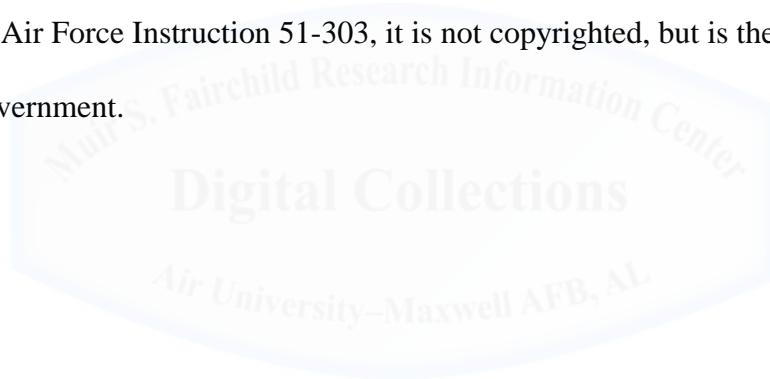


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ABSTRACT

Each year as the end of the fiscal year approaches, US Air Force commanders (as well as thousands of other government managers) wastefully and inefficiently spend their authorized budget appropriations down as close to zero as they can get. The purpose of this paper is to determine what changes the Air Force should make to its budget execution system that will reduce wasteful spending and encourage a culture of saving. It uses a problem/solution methodology, using the research question as the qualitative measure of which alternative is most suitable. The key findings are that Congress controls spending, and that budget execution law and practice force an urgency to spend every September. The research centered on finding alternatives to the current budget execution system that are being used by other government agencies that could be applied to the Air Force in order to answer the research question. Retained savings programs and carryover funds are the most promising methods. The paper's key recommendation is that Congress should pass legislation creating a retained savings incentive, by which 50 percent of budget savings should be returned to the unit in the form of Morale, Welfare, and Recreation funding the following fiscal year. This solution aligns the objective of saving with the inducement of a group reward.

INTRODUCTION

Each year, Air Force units face the daunting task of closing their budgets for the fiscal year. To keep within budget constraints, Congress requires that each unit can spend no more than its annual budget authorization.¹ It seems obvious that wise unit commanders must ensure they do not exceed the maximum authorization, thereby avoiding any negative repercussions. However, overspending is not the only thing to be avoided. For reasons that will be expounded upon later, underspending the total authorization is also regarded negatively.

The US government operates using a system of annual budgets. As a segment of the federal government, the Air Force falls under this budget system. Congress exerts its “power of the purse” by authorizing funds for the military only one fiscal year at a time.² Several laws, together known as the Antideficiency Act, prohibit spending more than Congress authorizes.³ The *bona fide* needs rule, reflected in 31 U.S.C. § 1502(a), prohibits agencies or units from carrying funds into the following year.⁴ Together, the Antideficiency Act and the *bona fide* needs rule form the foundation of the issue addressed in this paper. These laws create a strong incentive for agencies to spend every dollar or nearly every dollar of that authorization before the end of the fiscal year.

The Department of Defense, and the Air Force in particular, therefore, like other federal organizations, follows a predictable behavior. Each year, the system uses incrementally increasing budgets--the current spending level for a unit or agency is used as a baseline for the following year’s budget.⁵ No unit commander desires a decrease in budget authority, nor wants to give the appearance of having requested too much for the current year’s needs.⁶ Therefore, each fiscal year Air Force commanders spend as much of their budget as possible, out of fear of

having a smaller budget in the next fiscal year. In fact, Air Force Instruction 65-601, volume 2 directs that contracts be correctly executed, “so the Air Force does not lose funds...”⁷

In the private sector, any operational funds saved are pathways to higher profits. Therefore, in business every employee is encouraged to reduce costs. This can be a strong motivator and an inherent incentive. The Air Force, however, is not a business, with no profit to be made. Therefore, commanders feel little inhibition to spend everything they are authorized to spend, and each unit has the goal of spending 100 percent of its budget; no more, no less.⁸

The perceived need to spend as close to the maximum as possible creates complications and dilemmas for every commander. Most hold a percentage of their funds in reserve in case a priority purchase must be made with little or no notice.⁹ If such a need does not materialize, the funds must be spent on lower priorities or they will expire.

As a result many units approach the end of the fiscal year with some amount of reserve funds. Commanders pursue the 100 percent expenditure goal by continuing to purchase items until the end of the fiscal year, frequently spending for the sole purpose of hitting their target. If a unit is holding some funds in reserve, it must accelerate spending in September to meet the deadline.¹⁰ This spending is, at best, inefficient. Many year-end purchases are characterized by “poorly defined contracts, limited competition, and inflated prices”.¹¹

There are no thoughts of curbing the end of year frenzy that occurs every September. Spending dramatically increases at that time, and purchases made are not always made with a *bona fide* unit need. Not spending these funds would save money for the Air Force and, by extension, US taxpayers. Despite the opportunity to save, no commander wants to be the first

one to let funding lapse and return to the general fund, so the pattern and mentality to spend in such a manner is perpetuated year after year.¹²

In fiscally constrained times, the US Air Force should be seeking every way to save its precious financial resources. This research project will seek to determine if an incentive can be offered to members of the Air Force such that they will develop a culture of saving money to avoid the wasteful, inefficient spending. The hope is that such an incentive will motivate them to look for efficient, effective ways to accomplish the mission, purchase required supplies, and eliminate wasteful purchases that are not necessary. In other words, they will not have to look for extra items to purchase at year end for the sole purpose of fully obligating all of the unit's funds.

The question this paper attempts to answer is, "What changes should the Air Force make to its system of budget execution that will reduce wasteful spending and encourage a culture of saving?"

For units that obligate less than their full budget authorizations, the Air Force should capture the difference and reward the corresponding unit with Morale, Welfare, and Recreation (MWR) funds equal to 50 percent of that difference, in order to create an incentive to save, and to begin to build a culture of seeking ways to cut costs.

This paper will seek to identify a solution to encourage commanders to use resources they need without intentionally purchasing an unnecessary surplus. Three options will be discussed: (1) an incentive that gives units that save money extra MWR funds the following fiscal year, (2) an option to extend the spending period beyond the end of the fiscal year, and (3) an individual bonus incentive for leaders of units that save money.

Using an incentive like MWR funds is a type of budget reform initiative called retained savings. As the name implies, such a program allows an agency to keep some of the savings, if any, and use them in a manner that benefits the agency somehow.¹³ There are a number of successful examples in use by other governmental units around the country. These include programs in Philadelphia,¹⁴ North Carolina,^{15, 16} Washington,¹⁷ as well as the civil service within the Air Force.¹⁸

A number of researchers advocate another type of initiative—allowing a longer period before funds expire (beyond the end of the fiscal year). Such a concept has potential to reduce end of year spending, but does not answer the research question as to how the Air Force can create an atmosphere that rewards saving.

A reward in the form of additional MWR activities is something tangible that everyone on a base can see and share in the experience. Any incentive that recognizes or rewards higher ranking individuals may have the effect of upsetting or disillusioning subordinates. Further, using MWR funds to reward everyone eliminates a conflict of interest that cash payments might create.

This project will use a problem/solution framework to identify a way to reduce wasteful spending at the end of the fiscal year. It will begin with a background and summary of military budget laws and procedures that have led to the current problem, then it will provide statistical evidence that will back up the view that end of year spending is inefficient and wasteful. Next, using a qualitative approach, three solutions are discussed and evaluated as potential alternatives to the current system. The research focused on finding other governmental organizations that implemented an incentive within their budget, and determining if the success of those incentives

can be duplicated in the Air Force. The paper presents and explains examples of successful incentives in order to show relevance to the research question. After a description of the alternatives, the paper will discuss and contrast the strengths and weaknesses. One proposal that best answers both aspects of the research question (incentive for saving, and culture shift) will be selected and presented as the recommended solution.

The scope of this project is limited to US Air Force units executing budgets for operations and maintenance (O&M) funds. While characteristics and discussions of annual budgets can apply to many different agencies and levels of government in the United States or beyond, the solutions proposed are intended only for the US Air Force.



BACKGROUND

Overview of Federal Budget Law as it Applies to the Military

This section provides an overview of federal budget law as it applies to the Air Force. The issue of wasteful year end spending is rooted in the very laws originally passed to reduce abuses of government spending.

Congressional Control

The budget process, from budget development through budget execution, is controlled and overseen by Congress. Congress has the “power of the purse” granted by section 9 of the US Constitution. “No money shall be drawn from the treasury, but in consequence of appropriations made by law; and a regular statement and account of the receipts and expenditures of all public money shall be published from time to time.”¹⁹ Section 8 gives Congress the authority to create and pay for a military.²⁰ The Air Force is therefore a federal organization, bound by the laws governing federal spending and budgeting.

Over many years Congress has created numerous laws regulating spending that affect the Air Force. These laws compliment and clarify each other, but each addition makes the budget process more complex. Former congressional budget chief counsel William Dauster commented that “[T]he law governing the budget process resembles nothing so much as sediment. It has accumulated in several statutes, each layered upon the prior one... [t]his incremental growth has created something of a legal nettle.”²¹

One-year Incremental Budget System

The US government operates using a system of annual appropriations, or one-year budgets. October 1 is the first day of the fiscal year, which runs through September 30 of the following year.²² Each fiscal year, the system uses incrementally increasing budgets—the current spending level for a unit or agency is used as a baseline for the following year’s budget.²³

Antideficiency Act

Congress sets the authorized level of spending and guards jealously its power to appropriate funds. Several laws, together known as the Antideficiency Act, specify that no agency may spend more than Congress authorizes.²⁴ If an Air Force unit spends its entire authorization before the end of the fiscal year and needs more funds, that need is called a deficiency. The Antideficiency Act was passed in 1870 to curb such practices. After the Civil War, some army units spent all of their annual authorization in the first few months, and continued to obligate, then returned to Congress to request more funds. Services had already been rendered and the providers thereof deserved to be paid.²⁵ The act has since been amended and expanded. In addition to overspending, it now also prohibits obligating funds before they are authorized and appropriated, and accepting volunteer services on behalf of the government.²⁶ (These provisions came into play during the recent government shutdown. Employees were not allowed to voluntarily come to work unpaid; and they were not allowed to work “for pay” during the shutdown with the expectation of an appropriation of funds later.²⁷)

The Government Accountability Office (GAO) summarizes the effects of the Antideficiency Act:

These statutes evidence a plain intent on the part of the Congress to prohibit executive officers, unless otherwise authorized by law, from making contracts

involving the Government in obligations for expenditures or liabilities beyond those contemplated and authorized for the period of availability of and within the amount of the appropriation under which they are made... and to prohibit any officer or employee of the Government from involving the Government in any contract or other obligation for the payment of money for any purpose, in advance of appropriations made for such purpose; and to restrict the use of annual appropriations to expenditures required for the service of the particular fiscal year for which they are made.

Bona Fide Needs Rule

While the Antideficiency Act is primarily concerned with the quantity of funds appropriated, the *bona fide* needs rule, reflected in 31 U.S.C. § 1502(a), concerns itself with the timing of when funds can be obligated (disbursed or committed to be disbursed).²⁸ Congress not only controls the amount of money spent, they also place limits on the time during which appropriations are available.²⁹ Annual appropriations are made for expenditures within one specific fiscal year.³⁰ Further, the “appropriations are available only to meet the *bona fide* needs of the fiscal year for which they were appropriated.”³¹ Therefore, funds cannot be obligated during the current year for needs in a future fiscal year.³² These annual appropriations are the foundation of the incremental budget system.

Unobligated Funds

Any annual funds not obligated by the end of the fiscal year expire and can no longer be used for new obligations.³³ (Hence, the term “use it or lose it” to describe the process.) Unobligated funds remaining at the end of the fiscal year (sometimes called “lapsed funds”) eventually get returned to the Treasury. Once the fiscal year ends, the funds are held, in case there are unexpected cost increases or other expenses, called upward obligation adjustments, associated with programs or contracts that did get obligated properly during the year.³⁴ If there is a need to pay for these upward obligation adjustments, the lapsed funds are used, but if after

five years there are still any funds remaining, the appropriation is closed³⁵ and the funds are returned to the Treasury's general fund.³⁶

Current Spending Patterns

Purposeful Intent

The “use it or lose it” problem related to commanders desiring to spend all allocated funds before the end of the fiscal year is not unique to the Air Force. It occurs in most organizations that use a similar budgeting system. Canada's Department of National Defense, for example, uses a similar system and faces the same problem.³⁷ Many state and local agencies also utilize one-year budgets, at the end of which the funds expire. Throughout all these organizations there is a strong and purposeful intent to spend all or nearly all of authorized funds within the fiscal year.³⁸

When budgets shrink, commanders worry about the impact on mission effectiveness. Knowing that future years' appropriations are based on money spent during the current year, commanders attempt to retain as much potential future funding by maximizing their expenditures in the current year.³⁹ Gerald Miller, Donijo Robbins and Jaeduk Keum documented numerous examples of annual budget managers explaining the detriment of allowing funds to go unspent and to lapse. When a unit or agency is able to operate below its authorized budget and permits funds to expire, budget makers infer that the unit does not need as much funding in the following year, and reduces the next year's baseline authorization.⁴⁰ Former US Senator Tom Coburn felt that agencies should obligate what Congress appropriated, or “...Congress should consider appropriating less...”⁴¹ Further, if units end up with “leftover balances” it could be due to poor management which resulted in opportunities lost or it may be the units were given “excessive

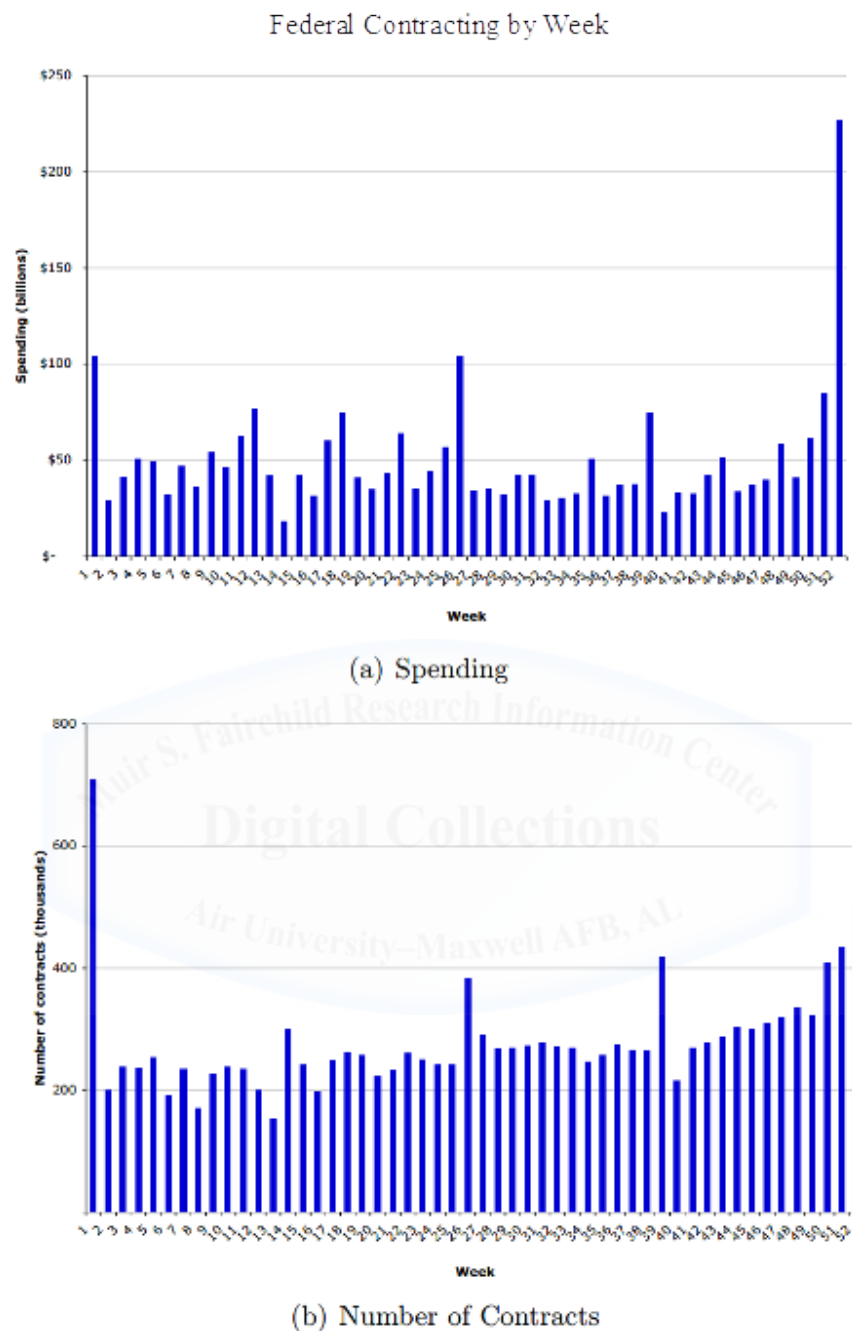
budget authority.”⁴² In order to avoid such lost opportunities or the appearance of having too large a budget, commanders are motivated to spend their entire authorization.

Purchasing Late in the Fiscal Year

One of the practical issues that face most managers of a budget is balancing important or high priority expenses with lower spending priorities. It is frequently difficult to estimate the full year’s costs for what a unit considers its highest priorities. As a result, the tendency is to withhold spending early in the fiscal year, and then once it is clearer how many priority funds will be required, increase spending rates later in the year. Neale Mahoney called this an “incentive to hoard”.⁴³ William Hurley, et al., refer to various purchases as high and low value. Any funds spent on low value items are not available later for the high value items that may be needed. To maximize high value activities, which are uncertain, commanders refrain from spending on low value purchases early in the year.⁴⁴ By not obligating funds early in the fiscal year, units must necessarily commit the majority of their budget authorization in the second half of the year.

Figure 1, below, graphically shows federal government spending from 2004 to 2009 pooled together by week of the fiscal year. There is a clear and dramatic spike in spending on the last week. (There is also heavy activity in the first week because that is when new funds are available to obligate for the fiscal year. Many service contracts are signed or renewed during the first week of October.)⁴⁵

Figure 1.



Source: Federal Procurement Data System, accessed October, 2010 via www.usaspending.gov.

Note: Total spending and number of contracts by week of the fiscal year. Spending values inflation-adjusted to 2009 dollars using the CPI-U.

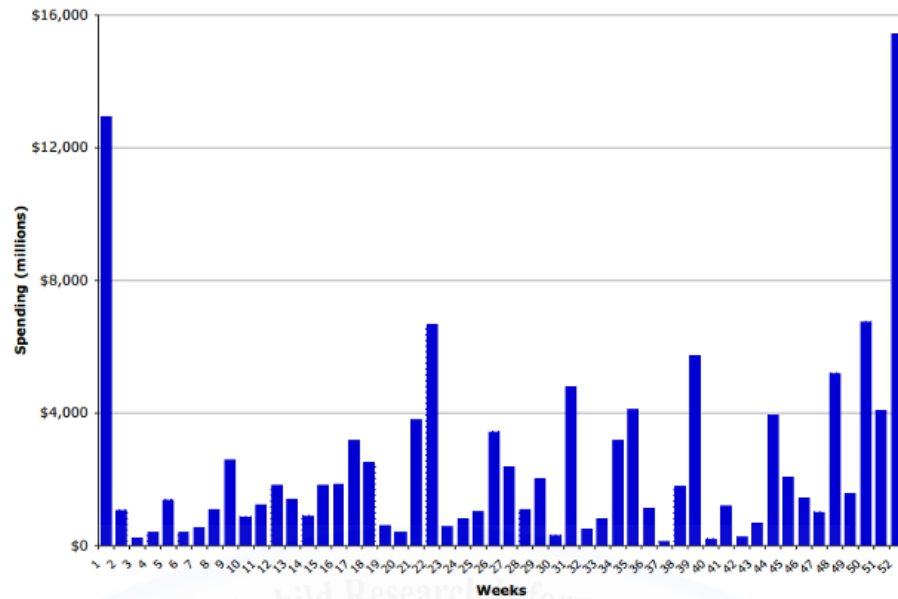
Source: Mahoney, “Essays in Public Finance”, 183.

Figure 2 illustrates spending on information technology (IT) within federal agencies for the same period. IT is a useful category of spending to analyze because nearly every agency has a need for such services, of which the Department of Defense is one of the largest consumers. This figure displays the telltale increase during the final week of the fiscal year. Another noteworthy aspect of the IT contracts is size. Because larger IT contracts generally have a longer planning horizon, they are typically completed earlier in the fiscal year. Once again, it shows that a large percentage of year end spending consists of less significant contracts.⁴⁶

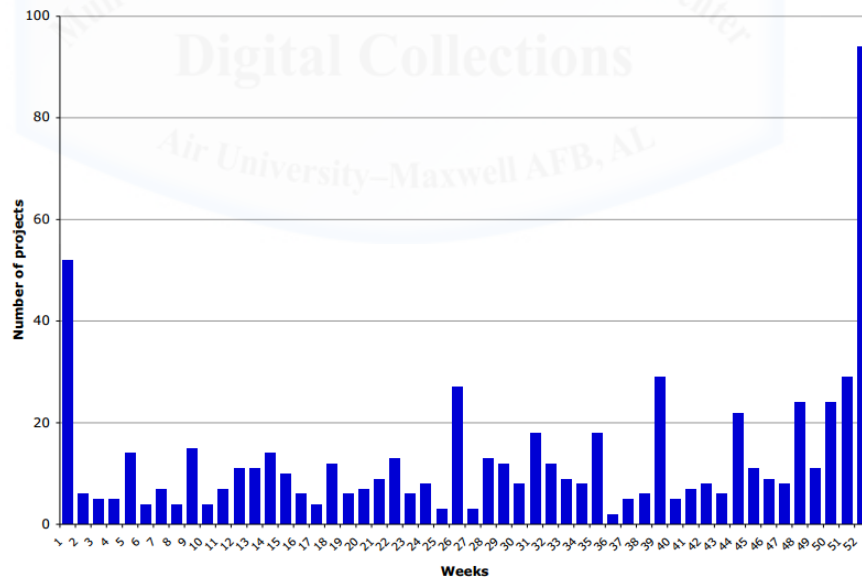


Figure 2.

IT Contracting by Week



(a) Spending



(b) Number of Projects

Source: I.T. Dashboard data, accessed March, 2010 via <http://it.usaspending.gov>.

Note: Total spending and number of I.T projects by week of the fiscal year. Spending values inflation-adjusted to 2009 dollars using the CPI-U.

Source: Mahoney, "Essays in Public Finance", 185.

Inefficient and Wasteful at Year End

When the end of the fiscal year approaches, major, high value purchases generally have already been made (as shown in the example of IT contracts). In order to “use up the budget” lower value purchases must be made. The desire to spend the full authorization and the September 30th deadline for obligating funds combine to accelerate the rate of expenditures within the last month, and frequently the last week of the fiscal year. According to testimony at a 2006 congressional hearing, this caused “a ‘use-it-or-lose-it’ mentality and a ‘rush to obligate’”.⁴⁷ The GAO described end of year spending as “sharks on a feeding frenzy”.⁴⁸ Katherine Barrett and Richard Green wrote that when agencies have “money left at the end of the year, a spendthrift mentality tends to take over.”⁴⁹

The results are spending decisions made in haste or low value purchases made to avoid underspending. “...poorly executed and monitored individual contracts are continually found.”⁵⁰ Also, the units may wait till year end to fund low value projects, and the spending deadline may prompt the expenditures because there is nothing better on which to spend the money.⁵¹

LCDR Stanley Dimirak and LT Timothy Lott’s research at the Naval Postgraduate School found that contracts or purchases made near the end of the fiscal year emphasized speed over quality. During other times of the year, they found high priority purchases were made using a rigorous review and contracting process. In September, however, such time consuming processes were bypassed by simply finding a lower priority item that had a National Stock Number (NSN) even though such items were not optimal solutions.⁵²

Mahoney analyzed not only the timing of government IT contracts, but also the quality. Based on reported aspects of each contract included in the analysis, the contracts were assigned a

numeric value for their quality. He found that over 48 percent of the money obligated during the last week of the fiscal year went toward contracts rated in the two lowest quality groups (out of five groups.) Further, there were several expensive, low quality contracts that are evidence of the rush to obligate the funds at year end.⁵³

Commanders Have No Motivation to Save

The current system used for budget execution is set up to expend funds without providing any reason to identify money-saving ideas. The primary goal is to expend, frequently without regard to cost or value. Such a mentality is ingrained and passed on to subsequent commanders and resource managers.

Morale, Welfare, and Recreation Funding

One of the alternatives provided by this paper involves providing additional funding to a unit's MWR program. A combination of appropriated funds and nonappropriated funds finance the Air Force MWR programs.⁵⁴ Appropriated funds are those funds that are directed and provided by Congress's constitutional authority. Nonappropriated funds are funds that MWR activities generate by their own functions. (For instance, greens fees paid by golfers or fees paid to use the bowling alley are considered nonappropriated funds.)

MWR activities are reflected in three categories: A, B, and C. Category A activities are mission sustaining programs and "promote the physical and mental well-being of the military member..."⁵⁵ They are funded almost entirely by appropriated funds. Some of the facilities in category A include base gymnasiums, libraries, parks and picnic areas.

Category B programs are for basic community support. Category B is similar to category A, but differs in its programs' ability to generate some of their own revenue.⁵⁶ Appropriated

funds are a substantial portion of the support because the nonappropriated funds they generate are limited.⁵⁷ While they are dependent on appropriated funds, a portion of the support comes from these nonappropriated funds. Examples of category B activities are childcare, youth programs, recreational centers, outdoor recreation, and recreational information for tickets and tours.

Category C is for revenue-generating programs. The primary funding source for category C is the nonappropriated funds they produce, although there are exceptions that allow some appropriated fund use.⁵⁸ Category C includes on-base lodging, base clubs, and other special interest activities. Enclosure 7 of Department of Defense Instruction (DODI) 1015.10 contains the guidance on the use of appropriated funds for category C programs.⁵⁹

This background information is provided to help the reader understand the research issue. The following section explains the three potential alternatives to end of year budget execution and how they might alleviate the problems.

ANALYSIS OF ALTERNATIVES

To answer the research question, the author identified three potential alternatives to curb end of year spending. First is a retained saving incentive in which 50 percent of annual savings are directed to additional MWR funds in the following fiscal year (“The MWR Option”). The second is to allow units to carry unobligated funds over past the end of the fiscal year (“Carryover Funds”). The third is a monetary incentive paid to leaders who achieve annual savings (“Individual Bonus”).

Morale, Welfare, and Recreation (MWR) Option

As elaborated above, Air Force commanders face barriers to obligating funds efficiently and to seeking out budget savings. Retained savings strategies, according to William Klay, are attempts to align incentives for leaders and members of a government organization with the desired outcome of improved performance, productivity, and saving.⁶⁰ Retained savings programs take a number of forms. For example, savings may be paid out to members of an organization (called gainsharing) or they may be paid into a special fund from which the unit may draw for specified needs. Savings may also be used as rewards such as merit pay or bonuses.⁶¹

The first option as an alternative to the “use it or lose it” spending process is to create a retained savings program that allows units that do not spend their entire authorization to keep a portion of the unobligated balance. Fifty percent of the unobligated balance would be returned to the unit in the form of additional MWR funds the following fiscal year. It is hoped that such an incentive would be as effective at motivating unit members to save funds and improve

productivity as other established retained savings plans. Several examples of retained savings programs were successfully implemented in the cities of San Diego, Philadelphia, Catawba County (located in North Carolina), and the states of North Carolina and Washington.

Pacer Share was a demonstration project from 1988-1993. During this time the Sacramento Air Logistics Center experimented with a gainsharing, retained savings incentive for the civil service employees there. The incentive was to “reinforce behaviors which result in attaining the organization’s goals.”⁶² For the quarters in which the air logistics center reduced the cost of labor by cutting costs or improving productivity all employees were paid a monetary incentive called a gainshare. A survey of workers taken four years into the demonstration showed that 44 percent of the workforce felt that the gainshares provided motivation to the workers.⁶³ Further, the workers indicated that they favored a group incentive over an incentive for individuals.⁶⁴ Finally, “they felt that there is a relationship between organizational performance and gainshares that are paid...”⁶⁵

Gainsharing was not the only aspect of the test. Work rules and pay scales were also adjusted. Also, not all aspects of the test showed improvement,⁶⁶ but the success in aligning attitudes for cost savings and the chance at a reward illustrates the potential for gainsharing to work in other units.

In 1997 the city of San Diego, California implemented the “Bid to Goal” project in its Metropolitan Wastewater Department (MWWD). The program included a cost reduction program accompanied with a gainsharing program. The program was credited with saving over \$109 million in its first six years.⁶⁷ To earn gainsharing rewards, the MWWD employees must

exceed specified saving goals. Employees receive 50 percent of the savings beyond the goal. In the first six years of the program, each year employees earned at least \$1500 per employee.⁶⁸

Former deputy secretary of the US Department of Commerce Robert Mallet noted that workers took responsibility for their work and believed that if they performed beyond “base expectations” that financial rewards would be the result. Further, he said, “This shared responsibility then creates an atmosphere for workers to think beyond merely what they are being paid or how much overtime they can accumulate, but also what they need to perform their jobs [and] why costs are important...”⁶⁹

The state of North Carolina’s Incentive Pay Program was put in place in 1978. Using a gainsharing incentive, it rewarded employees for improved group performance. If a unit reduced its expenditures in its current fiscal year compared to the prior year, up to 25 percent of the savings could be paid out as an incentive. The payments were divided evenly among all of the unit’s eligible employees. In its first two years the program saved the state over \$238,000.⁷⁰

Philadelphia, Catawba County, and the state of Washington have also implemented retained savings plans.^{71,72,73} Unlike the previously discussed programs, which direct funds to employees, these three organizations allow departments to keep some of the savings the departments generated. The funds each department was allowed to keep were to be used on projects that enhanced future efficiency. (Former Philadelphia) “Mayor Ed Rendell says it’s not hard to change incentives so that public employees save money.”⁷⁴

While these three examples do not give the retained savings back to the employees directly, they do give an incentive to increase performance or savings. By allowing the

departments to keep some of the funds, they share some aspects with the carryover option—namely the ability (with some limits) to spend funds after the end of the fiscal year.

Carryover Funds

A second alternative to the “use it or lose it” spending process is allowing carryover funds. A literature review discovered numerous studies and papers that recommend carryover funds. Authors include David Osborne, a leader in the “reinventing government” movement; graduate and doctoral candidates, such as Neale Mahoney, Capt Michael McPherson, Lt Cdr Dimirak and Lt Lott, Lt Mark Kozar, and Capt David Goble; as well as academics like James Douglas, Aimee Franklin, Katherine Barrett and Richard Green.

Carryover funds allow a unit to keep unobligated funds past the end of the fiscal year for which they are authorized, extending the period during which obligations may be made. The most significant effect is the elimination of the rush to spend as the end of September approaches. Oklahoma and the US Department of Justice are successful examples of this alternative. “Intuitively, organizations are less likely to engage in wasteful year-end spending when the funding could be used for higher value projects in the next budget period.”⁷⁵

In Oklahoma the state legislature allows specific agencies to carry over funds for an additional 16.5 months. There are limits, though, on what the surplus funds may be spent on.⁷⁶ For instance, they may not be used for regular operating expenditures, and must be “reprogrammed” so the legislature maintains oversight.⁷⁷ James Douglas and Aimee Franklin surveyed 40 chief finance officers of Oklahoma agencies and found the two most acknowledged benefits were elimination of the pressure to meet the end of year deadline and the flexibility that came as a result of the carryover funds.⁷⁸

Since 1992 the Department of Justice (DOJ) has had the ability to carry over unobligated funds into future fiscal years. Funds get deposited into the DOJ's Working Capital Fund. Like Oklahoma's procedures, there are restrictions on how the funds are used. The DOJ may use the funds for capital equipment, automated data processing equipment, or financial management, payroll, and personnel systems.⁷⁹ Unlike the system in Oklahoma, the carryover funds in the Working Capital Fund do not expire.

To validate the success of this program, Neale Mahoney analyzed IT spending within the Department of Justice to test whether the carryover funds changed spending patterns. As expected, he found that there was not a spending increase in the last week of the fiscal year as was shown in federal government spending as a whole (see Figure 2). The DOJ spent only 1.9 percent of its budget in the final week, compared to 11.0 percent for the rest of the federal agencies. Further, he found that the quality of contracts made in the last week were of the highest possible category. (While sample size was limited, Mahoney found statistical evidence strong enough to verify the benefit of carryover funds.)⁸⁰

Individual Bonus

The final alternative is to pay an incentive bonus to leaders in the units that meet savings targets and are capable of accomplishing policy objectives. This could be a type of retained savings or a merit pay program. Individuals who are involved in unit spending decisions would be the recipients of any bonuses paid out of a portion of the savings. The author was unable to find any representative example programs using such an incentive.

Congressional Approval Required

Any analysis of alternatives to end of year “use it or lose it” budget execution must start with the realization that any change must be initiated by Congress. Since Congress specifies by categories how much is allocated to each agency, unit, or purpose, those units or agencies may not spend funds for something Congress did not intend. All three of the alternatives this paper proposes involve redirecting funds away from their original appropriation using incentives. In order to implement this project’s recommendation, Congress must enact the changes. This paper lays out a possible course of action for how to do this in the recommendation section.

Comparison of Relative Merits

The benefits of a retained savings incentive in the form of the MWR option include the potential for improved unit morale, a culture shift to embrace savings, as well as money saved for the taxpayer. Because this alternative provides a reward that each member of the unit can access, there is an opportunity to improve morale. This can occur in two ways: for the recognition of members for a job well done, and for the opportunity to use the funds to entertain themselves or recreate. This is contrary to a retained savings plan that allows a unit to keep a portion of the funds saved, but over which a higher headquarters has authority to direct the disposition of the funds. If funds are diverted by a higher level of command, the people who worked to earn the incentive do not get to enjoy the spoils of their labor.⁸¹ The latter type of plan has not been as effective in the past. The MWR option, however, does reward the people who earned the reward.⁸²

Acceptance and adoption of the program, especially by unit commanders, will encourage a shift from a spending mentality to a saving mentality. If successful, the culture enabling unnecessary year end spending may change to one embracing responsible purchasing, and even

purposeful saving. By taking away the perceived need to spend every dollar of authorization, half of each of those dollars can be returned to the Treasury, providing the taxpayer a sort of “refund.”

In addition to these benefits, the MWR option has the potential drawbacks of unscrupulous commanders, Congress’s perceived loss of power, and future baseline reductions. One thing that could derail the success of an MWR option is the potential for a commander to pursue saving money to the detriment of accomplishing the mission. Such a situation ought to be countered by lower level commanders advocating the correct course of action to pursue mission accomplishment and proper spending priorities, as well as by the oversight by higher levels of command to verify the unit’s performance.

Another downside to a retained savings program is that Congress may perceive that it is giving up some of its power to direct spending.⁸³ In the case of the MWR option, some funds intended by the legislature for operational purposes will, in the end, be used for another. However, the funds will be used within a known category. They will not allow unit commanders to have a wide range of new spending options. Keeping it only within the bounds of MWR spending should adequately limit the amount of directive power lost.

One last obstacle to implementing an MWR option is skepticism of Air Force members about the intent of the program. If they believe that at any point in the future, the savings will be used as justification to cut the baseline budget authorization, there may be resistance to embrace the changes.

If, instead, a carryover option is selected, its potential benefits include more flexibility for commanders and improved purchasing efficiency. By extending the deadline by which funds

must be obligated, the commanders get the flexibility to select the right time to effect contracts. The option should allow more time to make better-informed decisions which will allow more efficient use of the funds on higher priority purchases.⁸⁴ Carryover funds may also, then, cover upward obligation adjustments after the end of the fiscal year.

As noted above with the MWR option, the carryover option may give Congress the impression of a loss of its constitutional power. There is a potential for a unit to build up a substantial cash reserve by not spending its full authorization. This reserve may then be spent for something outside Congress's original intent.⁸⁵ Large balances within the Department of Justice's Working Capital Fund prompted critical review in 2008 by the Senate Subcommittee on Federal Financial Management.⁸⁶ A subsequent review by the GAO in 2012 verified that the DOJ was using its carryover funds in accordance with Congress's intent.⁸⁷

When authorizing a carryover incentive, Congress can retain control by using one of several techniques. First, Congress may set limits on the percentage of funds that may carry over, such as three to five percent of the annual appropriation. Congress could also establish a maximum amount (a ceiling) of accumulated funds carried over—by percentage or dollar amount.⁸⁸ Two other methods to retain control are to restrict the types of purchases the units may make using carryover funds, such as in the case of Washington state,⁸⁹ or to maintain close oversight of the programs, as Congress has done with the DOJ Working Capital Fund.⁹⁰

Also, as noted with the MWR option, commanders making spending decisions must be able to trust that savings produced by allowing funds to carry over will not result in lower baseline funding in future fiscal years. When senators like Senator Coburn or other budget making officials threaten to reduce future funding because of carryover balances, the gains

achieved may be threatened.⁹¹ Like the MWR option, if the commanders sense they will face a reduced baseline, they will be more likely to rush to spend their entire authorization by the end of the fiscal year.

Another drawback to recommending a carryover incentive program is the fact that a number of scholars have recommended this course of action, but Congress has never acted on them. (See **Carryover Funds**, page 20, for a short list of authors.) Since 1992 Congress has allowed the US Department of Justice to carry over funds to the next fiscal year, but has not adopted a similar system for the Department of Defense.⁹² The likelihood of convincing Congress to implement such a plan is, therefore, low.

The third option, the individual bonus incentive, has benefits but is riddled with even more drawbacks. In its favor, the incentive takes a businesslike approach, and incents leaders to change spending habits. Many commentators believe the military should adopt various procedures to be more like a business, but, as stated earlier, the Air Force is not a business. The bonus incentive may provide new motivation to the leaders in charge of budget decisions, but not the average Air Force member. While it may be an incentive for leaders, the individual bonus may provide disillusionment for junior members who don't share in the reward they may have helped create.

In addition, a bonus for an individual is counter to traditional Air Force values. It would seem hypocritical to espouse service before self, yet accept a bonus for savings a commander directly controls. Furthermore, Gerald Miller reported a survey that showed a vast majority of those surveyed thought individual bonuses were unnecessary (and rendered them ineffective).⁹³

Some may argue that budgets are tight for all organizations, and there never seems to be enough. With such a view, it seems impossible to find savings. However, they overlook situations in which a unit operates “under budget,” then identifies extra purchases at end of year in order to use its entire authorization. Critics may also consider any unappropriated funds as lost, as if not expending them is somehow shameful. The perception of losing unspent funds is even written into Air Force Instructions.⁹⁴ This perception causes the attitude that needs modification because it perpetuates the spending mentality. Once priority spending is accomplished, this mentality requires the commander to seek out things on which to spend the rest of the funds just to keep from losing them.

Each proposed alternative was drafted in order to curb the spending mentality. Each is hoped to accomplish that in its own way. In comparison, the MWR option creates a new motivation for all members, while a carryover option and individual bonus do not. The MWR option has the potential to increase morale, giving the average Air Force member something to strive toward. The carryover and individual bonus benefit both the Air Force and senior leaders who make budget execution decisions, but not every member of the units involved. William Klay wrote, “Emphasizing group rewards better recognizes the collective effort that would be essential to achieving substantial efficiencies.”⁹⁵ Only the MWR option is able to satisfy both aspects of the research question—to reduce wasteful spending and to stimulate culture change.

RECOMMENDATION

Retained savings programs exist in various forms in a number of government agencies. Their success indicates they could also work for the US Air Force. Because the MWR option is the only one of the three proposed alternatives that satisfies both segments of the research question, this paper recommends that Congress, the Department of Defense, and the Air Force adopt and implement the option. This solution aligns the objective of saving with the inducement of a group reward with potential for a boost in morale.

As discussed above, Congress has the constitutional power to raise and pay for military services. With that power Congress stipulates amounts and purposes for which budget appropriations are authorized.⁹⁶ Therefore, the first action must be taken by the legislature. The recommendation is that Congress create legislation in the next Defense appropriations act that will allow a five-year test using several units of representative size (both small and large installations) and geographic location (continental United States and overseas). Such a test should permit the Department of Defense and the Air Force to shift 50 percent of budget savings from operational mission spending categories to appropriated funds for MWR. Since Congress is already granted the power to fund both the operational mission and MWR programs, the recommendation does not seek to expand Congressional authority.

In addition to an act by Congress, this paper further recommends that the MWR incentive funds be allowed to supplement all three categories of MWR spending, as determined by the local leadership at the unit level. Currently, there are limitations on the use of appropriated funds for category C programs. This project recommends the Department of Defense incorporate

changes into DODI 1015.10 allowing MWR incentive funds to supplement category A, B, and C programs. Since the MWR incentive funds are to be a reward, allowing funds to increase recreational activities in all three categories would allow deserving Air Force members the maximum opportunity to enjoy the fruit of their labor in the activity of their choice.

The five-year test should be monitored by the Office of Management and Budget (OMB). The OMB should develop reporting requirements and testing to validate the initiative's success or failure. The factors monitored should include budget performance, incentives earned and disbursed, as well as attitudes of the unit members. Such observation should be developed to verify whether or not the incentive has the desired effect of changing attitudes toward spending versus saving.



CONCLUSION

In order to reach its conclusion, this research paper began by examining the roots of the problems associated with year end spending. Congressional budget laws and procedures, including the Antideficiency Act, *bona fide* needs rule, and system of one-year budgets create a system in which commanders feel they must spend everything they are authorized to spend. Also, because of budget uncertainty, they tend to hold some funds in reserve to cover unexpected high priority needs. When the needs do not materialize, the commanders are left to accelerate spending on lower priority needs as the end of the fiscal year approaches. Many times that spending is inefficient and wasteful.

The author asserts that changes should be made to the budget execution system within the Air Force that will alleviate last-minute spending and encourage Air Force members to find ways to save money rather than spend it needlessly. The research identified a retained savings incentive as a way to satisfy the research question. This initiative will reward a unit that operates under budget with 50 percent of those savings in the form of MWR funds the following year. While extending the period to obligate budget funds by carrying funds over into the next fiscal year is another potential alternative, it failed to successfully answer both parts of the research question. The third option of an individual bonus was unsupportable by lack of workable examples and conflict with Air Force core values.

Since the US Constitution gives Congress the “power of the purse”, Congress must initiate changes in the budget law that will allow the Air Force to reallocate funds that were saved in accounts designated for operational mission needs into MWR accounts. In addition, the

DOD must amend its MWR funding instruction to allow the incentive funds to flow to all three categories of MWR programs. The last recommendation is that the OMB be tasked to monitor and observe the program to analyze its effectiveness. All recommendations are made with the hope that members of the Air Force at all levels will be motivated to find savings and be ingrained with a favorable attitude toward cost savings, and then be rewarded for their efforts.



NOTES

1. Antideficiency Act, 31 U.S.Code § 1341, 1342, and 1517.
2. United States Government Accountability Office, *Principles of Federal Appropriations Law*. 3rd ed. Vol 1. (Washington, D.C.: Office of the General Counsel, January 2004), 5-4.
3. Antideficiency Act.
4. *Bona Fide* Needs Statute, 31 U.S.C. § 1502(a).
5. CAPT Michael F. McPherson, “An Analysis of Year-End Spending and the Feasibility of a Carryover Incentive for Federal Agencies” (master’s thesis, Naval Postgraduate School, 2007), 5.
6. Gerald J. Miller, Donijo Robbins and Jaeduk Keum. “Incentives, Certification, and Targets in Performance Budgeting” *Public Performance & Management Review* 30, No. 4 (June 2007): 470. <http://www.jstor.org/stable/20447646> (Accessed June 8, 2015).
7. Air Force Instruction (AFI) 65-601, Volume 2, *Budget Management for Operations*, 18 May 2012, 11.
8. Gerald J. Miller, et al., “Incentives, Certification, and Targets,” 470.
9. LCDR Stanley S. Dimirak and LT Timothy V. Lott, “An Evaluation of Transforming the Obligation Period for the DOD Operations and Maintenance Account” (master’s thesis, Naval Postgraduate School, 2005), 2.
10. Neale Mahoney, “Essays in Public Finance and Industrial Organization,” Chapter 4. (PhD diss., Stanford University, 2011), 154. <https://stacks.stanford.edu/file/druid:fx992pz6459/E-thesis%20v1-augmented.pdf> (Accessed June 18, 2015).
11. Ibid., 154.
12. Capt David J. Goble, “Year-End Spending: An Analysis of the Contracting Officer’s Perspective” (master’s thesis, Air Force Institute of Technology, September 1987), 1.
13. William Earle Klay, “Management Through Budgetary Incentives,” *Public Productivity Review* 10, No. 3 (Spring, 1987): 65.
14. Vice President Al Gore, *From Red Tape to Results: Creating a Government That Works Better and Costs Less*, Report of the National Performance Review, (Washington, D.C.: Times Books/Government Printing Office, 7 September 1993), 110.
15. James E. Jarrett, *Improving Productivity through Monetary Incentives: North Carolina’s Bonus Experiment*, (Lexington, KY: State Government Productivity Research Center, March 1981), 1-8.
16. Catawba County Budget Office, *Summary of Outcome Budgeting, The Reinventing Process*, (Catawba County, NC: Catawba County Budget Office, 2013), 1.

17. McPherson, “An Analysis of Year-End Spending,” 34.
18. Joyce S. Dutcher, *Pacer Share : A Federal Productivity and Personnel Management Demonstration Project : Fourth-Year Project Evaluation Report* (Washington, D.C.: Navy Personnel Research and Development Center, Organizational Systems Department, 1992).
19. United States Constitution. Art. I, § 9, cl. 7.
20. United States Constitution, Art. I, § 8, cl. 11.
21. William G. Dauster, *Budget Process Law Annotated*, S. Print No. 102-22, at xxvii (1991) in United States Government Accountability Office, *Principles of Federal Appropriations Law*. 3rd ed. Vol 1. (Washington, D.C.: Office of the General Counsel, January 2004), 1-16.
22. GAO, *Principles of Federal Appropriations Law*. Vol 1, 5-4.
23. McPherson, “An Analysis of Year-End Spending,” 5.
24. Antideficiency Act, 31 U.S.Code § 1341, 1342, and 1517.
25. GAO, *Principles of Federal Appropriations Law*. Vol 2, 6-34.
26. *Ibid.*, 6-35.
27. Andrew Cohen, “The Odd Story of the Law That Dictates How Government Shutdowns Work,” *The Atlantic*, 28 September 2013, <http://www.theatlantic.com/politics/archive/2013/09/the-odd-story-of-the-law-that-dictates-how-government-shutdowns-work/280047/> (accessed 19 September 2015).
28. GAO, *Principles of Federal Appropriations Law*. Vol 2, 7-2.
29. GAO, *Principles of Federal Appropriations Law*. Vol 1, 5-3.
30. *Ibid.*, 5-4.
31. *Ibid.*, 5-6.
32. Mahoney, “Essays in Public Finance,” 153.
33. *Ibid.*, 153.
34. Air Force Instruction (AFI) 65-601, Volume 1, *Budget Guidance and Procedures*, 16 August 2012, incorporating Change 1, 29 July 2015, 106.
35. *Ibid.*, 107.
36. McPherson, “Analysis of Year-End Spending,” 6.
37. W. J. Hurley, Jack Brimberg & Brent Fisher, “Use It or Lose It: On the Incentives to Spend Annual Defence Operating Budgets,” *The Royal Military College of Canada, Kingston, ON, Canada. Defence and Peace Economics* 25, no. 4. (August 2014): 401. Published online: 28 Mar 2013.
38. McPherson, “Analysis of Year-End Spending,” 6.
39. *Ibid.*, 6.

40. Gerald J. Miller, et al., "Incentives, Certification, and Targets," 470.
41. Senator Tom Coburn, "Justice Denied: Waste & Mismanagement at the Department of Justice," (Washington, D.C.: Office of Senator Tom Coburn, October 2008), 85.
42. McPherson, "Analysis of Year-End Spending," 1.
43. Mahoney, "Essays in Public Finance," 154.
44. Hurley, et al., "Use It or Lose It," 402.
45. Mahoney, "Essays in Public Finance," 164.
46. Ibid., 184.
47. Ibid., 154.
48. GAO, *Principles of Federal Appropriations Law*. Vol 1, 5-16.
49. Katherine Barrett and Richard Green. "You Can't Bank On It." *Governing* (September 2002), <http://www.governing.com/columns/smart-mgmt/Cant-Bank.html>.
50. McPherson, "Analysis of Year-End Spending," 19.
51. Mahoney, "Essays in Public Finance," 154, 176.
52. Dimirak and Lott, "Transforming the Obligation Period," 12.
53. Mahoney, "Essays in Public Finance," 175, 186.
54. Department of Defense Instruction (DODI) 1015.10. *Military Morale, Welfare, and Recreation (MWR) Programs*, 6 July 2009, Incorporating Change 1, 6 May 2011, 14.
55. Ibid., 24.
56. Ibid., 33.
57. Ibid., 26, 33.
58. Ibid., 29.
59. Ibid., 35-37.
60. Klay, "Management Through Budgetary Incentives," 65.
61. Ibid., 66.
62. Dutcher, *Pacer Share*, 113.
63. Ibid., 126.
64. Ibid., 128.
65. Ibid., 128.
66. Ibid., 155-159.
67. David Osborne and Peter Hutchinson, *The Price of Government: Getting the Results We Need in an Age of Permanent Fiscal Crisis* (New York, NY: Basic Books, 2004), 151.

68. Ibid., 151.
69. Ibid., 152.
70. Jarrett, *Improving Productivity through Monetary Incentives*, 2-4.
71. Gore, *From Red Tape to Results*, 110.
72. Catawba County, *Outcome Budgeting*, 1.
73. McPherson, "An Analysis of Year-End Spending," 34.
74. Gore, *From Red Tape to Results*, 110.
75. Mahoney, "Essays in Public Finance," 179.
76. James W. Douglas and Aimee L. Franklin, "Putting the Brakes on the Rush to Spend Down End-of-Year Balances: Carryover Money in Oklahoma State Agencies," *Public Budgeting & Finance* 26, no. 3 (Fall 2006): 55.
77. Ibid., 56.
78. Ibid., 57-58.
79. United States General Accountability Office, *Working Capital Fund Adheres to Some Key Operating Principles but Could Better Measure Performance and Communicate with Customers*, Report to the Subcommittee on Commerce, Justice, Science, and Related Agencies, Committee on Appropriations, House of Representatives (Washington, D.C.: United States General Accountability Office, January 2012), 2-5.
80. Mahoney, "Essays in Public Finance," 181.
81. McPherson, "Analysis of Year-End Spending," 31.
82. Klay, "Management Through Budgetary Incentives," 65-66.
83. McPherson, "Analysis of Year-End Spending," 28.
84. GAO, Working Capital Fund, 27.
85. Fichtner and Greene, "Curbing the Surge," 20.
86. Senator Tom Coburn, "Justice Denied: Waste & Mismanagement at the Department of Justice," (Washington, D.C.: Office of Senator Tom Coburn, October 2008), 5.
87. GAO, Working Capital Fund, 27.
88. Ian Lienert and Gösta Ljungman, "Carry-Over of Budget Authority," Public Financial Management Technical Guidance Note, Fiscal Affairs Department, International Monetary Fund, 2009, 7.
89. McPherson, "Analysis of Year-End Spending," 36.
90. GAO, Working Capital Fund, 12.
91. Coburn, "Justice Denied," 85.

- 92. Fichtner and Greene, “Curbing the Surge,” 21.
- 93. Miller, “Government Budgeting,” 133.
- 94. AFI 65-601, V2, *Budget Management for Operations*, 18 May 2012, 11.
- 95. Klay, “Management Through Budgetary Incentives,” 66.
- 96. United States Constitution. Art. I, § 9, cl. 7, § 8, cl. 11.



BIBLIOGRAPHY

- Air Force Instruction (AFI) 65-601, Volume 1. *Budget Guidance and Procedures*, 16 August 2012, incorporating Change 1, 29 July 2015.
- Air Force Instruction (AFI) 65-601, Volume 2. *Budget Management for Operations*, 18 May 2012.
- Antideficiency Act, 31 U.S.Code § 1341, 1342, and 1517.
- Barrett, Katherine, and Richard Green. "You Can't Bank On It." *Governing* (September 2002). <http://www.governing.com/columns/smart-mgmt/Cant-Bank.html> (accessed 26 September 2015).
- Bona Fide Needs Statute*. 31 U.S.C. § 1502(a).
- Catawba County Budget Office. *Summary of Outcome Budgeting, The Reinventing Process*. Catawba County, NC: Catawba County Budget Office, 2013.
- Cohen, Andrew. "The Odd Story of the Law That Dictates How Government Shutdowns Work," *The Atlantic*, 28 September 2013, <http://www.theatlantic.com/politics/archive/2013/09/the-odd-story-of-the-law-that-dictates-how-government-shutdowns-work/280047/> (accessed 19 September 2015).
- Department of Defense Instruction (DODI) 1015.10. *Military Morale, Welfare, and Recreation (MWR) Programs*, 6 July 2009, Incorporating Change 1, 6 May 2011.
- Dimirak, LCDR Stanley S., and LT Timothy V. Lott. "An Evaluation of Transforming the Obligation Period for the DOD Operations and Maintenance Account." Master's Thesis. Naval Postgraduate School. December 2005.
- Douglas, James W., and Aimee L. Franklin. "Putting the Brakes on the Rush to Spend Down End-of-Year Balances: Carryover Money in Oklahoma State Agencies." *Public Budgeting & Finance* 26, no. 3 (Fall 2006): 46-64. *Business Source Complete*, EBSCOhost (accessed June 8, 2015).
- Douglas, James W., and Aimee L. Franklin. "Revolving Funds as Budgeting Tools: An Examination of Oklahoma State Agencies." *State & Local Government Review* 35, No. 2 (Spring, 2003): 90-101. <http://www.jstor.org/stable/4355338> (Accessed June 8, 2015).
- Dutcher, Joyce S. *Pacer Share : A Federal Productivity and Personnel Management Demonstration Project : Fourth-Year Project Evaluation Report*. Washington, D.C.: Navy Personnel Research and Development Center, Organizational Systems Department, 1992.

- Goble, Capt David F. "Year-End Spending: An Analysis of the Contracting Officer's Perspective." Master's Thesis, Air Force Institute of Technology, September 1987.
- Gore, Al, Vice President of the United States. *From Red Tape to Results: Creating a Government That Works Better and Costs Less*. Report of the National Performance Review. Washington, D.C.: Times Books/Government Printing Office, 7 September 1993.
- Hearn, James C., et al. "Incentives for Managed Growth": A Case Study of Incentives-Based Planning and Budgeting in a Large Public Research University." *Journal Of Higher Education* 77, no. 2 (March 2006): 286-316. *Academic Search Premier*, EBSCOhost (accessed September 11, 2015).
- Hurley W. J., Jack Brimberg & Brent Fisher, "Use It or Lose It: On the Incentives to Spend Annual Defence Operating Budgets," The Royal Military College of Canada, Kingston, ON, Canada. *Defence and Peace Economics* 25, no. 4. (August 2014): 401-413. Published online: 28 Mar 2013.
- Jarrett, James E. *Improving Productivity through Monetary Incentives: North Carolina's Bonus Experiment*. Lexington, KY: State Government Productivity Research Center, March 1981.
- Klay, William Earle. "Management through Budgetary Incentives." *Public Productivity Review* 10, No. 3 (Spring, 1987): 59-71. <http://www.jstor.org/stable/3380087> (accessed 9 September 2015).
- Kozar, LT Mark, J. "An Analysis of Obligation Patterns for the Department of Defense Operations and Maintenance Appropriations". Master's Thesis, Naval Postgraduate School, December 1993.
- Lienert, Ian, and Gösta Ljungman. "Carry-Over of Budget Authority." Public Financial Management Technical Guidance Note, Fiscal Affairs Department, International Monetary Fund, 2009.
- Mahoney, Neale. "Essays in Public Finance and Industrial Organization," Chapter 4. PhD Diss., Stanford University, 2011. <https://stacks.stanford.edu/file/druid:fx992pz6459/E-thesis%20v1-augmented.pdf>
- Working Capital Fund Adheres to Some Key Operating Principles but Could Better Measure Performance and Communicate with Customers*. Report to the Subcommittee on Commerce, Justice, Science, and Related Agencies, Committee on Appropriations, House of Representatives. Washington, D.C.: United States General Accountability Office, January 2012.

McPherson, CAPT Michael F. "An Analysis of Year-End Spending and the Feasibility of a Carryover Incentive for Federal Agencies." Master's Thesis, Naval Postgraduate School. December 2007.

Miller Gerald J., Donijo Robbins and Jaeduk Keum. "Incentives, Certification, and Targets in Performance Budgeting" *Public Performance & Management Review* 30, No. 4 (June 2007): 469-495. <http://www.jstor.org/stable/20447646> (Accessed June 8, 2015).

Osborne, David, and Peter Hutchinson. *The Price of Government: Getting the Results We Need in an Age of Permanent Fiscal Crisis*. New York, NY: Basic Books, 2004.

United States Constitution.

United States Government Accountability Office. *Principles of Federal Appropriations Law*. 3rd ed. Vol 1. Washington, D.C.: Office of the General Counsel, January 2004.

Year-end Spending: Reforms Underway But Better Reporting and Oversight Needed. United States General Accounting Office. Publication No. GAO/AIMD-98-185. Washington, D.C.: US Government Printing Office. July 1998.

